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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

JUL 03 1999



REPLY TO THE ATTENTION OF:

SE-5J

MEMORANDUM

SUBJECT: ACTION MEMORANDUM - Request for a Time-Critical Removal Action at the R and R Sales Site, South Chicago Heights, Cook County, Illinois (Site ID #B5C4)

FROM: Brad Benning, On-Scene Coordinator
Emergency Response Branch, Section II

TO: William E. Muno, Director
Superfund Division

THRU: Richard Karl, Branch Chief
Emergency Response Branch

I. PURPOSE

The purpose of this memorandum is to request and document your approval to expend up to \$276,548 in order to abate an imminent and substantial threat to public health, welfare, and the environment posed by the presence of uncontrolled hazardous substances located at the R and R Sales facility, in South Chicago Heights, Cook County, Illinois (the "Site"). The proposed scope of work calls for the removal and disposal of hazardous substances, such as flammable solids, acids, caustics, chlorinated solvents, and heavy metal solutions and solids, found in drums/containers, debris, and soil located on the Site.

The proposed response action will mitigate threats to public health, welfare, and the environment posed by the presence of uncontrolled hazardous substances located on or below the surface of the Site. Proposed removal actions include, but are not limited to, the assessment and stabilization of chemical hazards at the Site, and excavation and off-site disposal of the hazardous substances. The presence of hazardous substances located on or below the surface of the Site, the ongoing release of the substances, the unrestricted access to the property, and the Site's proximity to residential and commercial areas require that this removal be classified as

time-critical. The project will require an estimated twenty-five 10-hour on-site working days to complete.

The Site is not on the National Priorities List ("NPL").

II. SITE CONDITIONS AND BACKGROUND

The CERCLIS ID number for the Site is ILSFN0507804.

The Site is located at 3211 Holeman Avenue in South Chicago Heights, Cook County, Illinois. The Site is less than one acre and has geographic coordinates of latitude 41°28'15" North, longitude 87°37'10" West. The Site is located in a suburban industrial neighborhood, surrounded by residential and commercial buildings.

The Site consists of a 7000 square-foot, one story, industrial, brick building and a fenced lot adjacent to the east side of the facility. The Site is bordered to the west by Holeman Avenue, to the north by an auto body shop, to the south by an architectural molding manufacturer, and to the east by a private residence. A steel facility is located west of the Site, across Holeman Avenue.

A Region 5 Superfund Environmental Justice analysis has been prepared for the area surrounding the Site. This analysis is presented in Attachment I. Based upon 1990 Census data, 40% of the residential population in the affected Census Block Group are below the low income level. The Site does not qualify as an Environmental Justice Case based upon low income levels among the nearby residents.

The R and R Sales Site is an inactive electroplating facility which performed electroless nickel and chromium processes. It is unknown when the facility began operations, but in the early 1990s, the facility lost 70% of its business, which forced the facility owner to file for bankruptcy and close the facility. Based on information obtained from the facility owner, the company dismantled the plant and liquidated equipment in an attempt to pay for the disposal of the remaining solutions and waste. When these revenues fell short, the disposal plan was not implemented and the various containers of material were left on site, such as spent nickel and chrome solutions, along with various raw materials and cleaning solutions. The facility includes offices, laboratory, process and storage areas, and a front loading dock. The facility doors were locked, but the back garage door has a large hole which allows access into the building. The back lot is fenced, with a locked gate, but is easily accessible by climbing the fence or breaking the lock. The roof of the building has deteriorated, allowing substantial rainfall in, which has caused the numerous open containers to overflow, and has also damaged several fiber containers.

The Illinois EPA and the Illinois Attorney General's Office conducted a Site investigation on October 27, 1998. During this investigation, Illinois EPA conducted sampling to determine if materials left at the Site were hazardous wastes and subject to potential Resource Conservation and Recovery Act ("RCRA") violations. The results of the October 27, 1998 sampling event indicated the presence of RCRA wastes, specifically chromium ("D007") and corrosive acid

("D002"). The Illinois Attorney General's Office has an ongoing investigation regarding possible criminal violations due to the abandonment of the materials. At this time, local officials have taken no independent action against the facility owner. The State has requested U.S. EPA assistance to address the Site, as State financial resources are not available at this time.

On May 13, 1999, On-Scene Coordinator ("OSC") Brad Benning and the Superfund Technical Assessment and Response Team contractors ("START") conducted a site assessment at the Site. The site assessment consisted of a site reconnaissance with air monitoring, drum sampling, and drum inventorying.

During the assessment, the OSC and START observed releases inside the building, due to the poor condition of the containers and severe roof leakage, and releases from open poly vats, open containers, and deteriorating drums located outside of the building. The OSC and START identified approximately 14 one-gallon, 11 ten-gallon, 16 five-gallon, 2 twenty-gallon, 3 thirty-gallon, 1 forty-gallon, 164 fifty-five-gallon containers and 9 fifty-pound bags located throughout the plant and within the fenced lot. There are 133 drums/containers located outside in the fenced lot. Several of these drums/containers are in various stages of deterioration and there is evidence of leakage onto the ground. Some of the 5-gallon pails have no lids and appeared to contain chromic acid. Stained soil was observed around several containers, although off-site migration could not be determined at that time. There are also several drums and small containers located inside the building. Some of these drums/containers are also missing lids, but are in fair condition. Labels were visible on many of the containers which indicated the possible presence of flammable solids, chromic acids, nitric acid, sulfuric acid, sodium hydroxide and trichloroethylene; however, the majority of the 133 drums outside were not labeled, but it is suspected that these particular drums contain mostly chromic acid and some acidic nickel solutions.

The START contractor collected four samples from four different containers, all which tested acidic with the pH paper. Sample SA01 was from an unlabeled 55-gallon drum located in the rear yard, Sample SA02 from an uncovered 5-gallon pail located outside near the exhaust pipe in the rear yard, Sample SA03 from an uncovered 5-gallon container located inside the building, and Sample SA04 from a 5-gallon drum labeled "sulfuric acid". Photographic documentation was conducted throughout the assessment activities.

Analytical results indicate that the materials on-site exceed RCRA characteristics for hazardous wastes. The RCRA hazardous waste criteria (40 C.F.R. § 261.22) for corrosivity (waste code D002) is a pH of less than or equal to two. All four samples had a pH of less than one, designating them as a U.S. EPA hazardous waste. Total chromium results ranged from 65,400 to 161,000 milligrams per kilogram (mg/kg) or 6% to 16%. Total nickel results ranged from 23 to 301 mg/kg. In addition, information from the facility owner indicate at least 400 gallons of chromic acid solution and 2500 gallons of used electroless nickel solution are present on the Site. With respect to the air monitoring assessment, no readings above background were detected at that time.

III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES

A removal action is necessary at the R & R Sales Site to abate the threat to public health, welfare or the environment posed by the release and potential release of hazardous substances. The NCP, 40 C.F.R. § 300.415(b)(2), provides eight specific criteria for evaluation of a threat and the appropriateness of a removal action. Observations documented during the Site investigation indicate that the Site meets the following criteria for a time-critical removal action:

A. Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants;

This factor is present at the Site due to the large volume of hazardous substances on-site, and the significant potential for a release of toxic vapors to the adjacent building tenants and surrounding neighborhoods. The nearest residence is adjacent to the east of the Site. The building is locked and the fence surrounding the building is in good condition, with the gate locked; however, a trespasser could easily climb the fence and become exposed to the drums/containers in the yard or enter the building through the hole in the garage door after climbing the fence. Any unauthorized access to the Site would pose a direct contact threat due to spilled materials, open vats, drums, and vapors accumulating inside and outside the facility. Volatile organic materials, acids, and caustics pose inhalation, ingestion, and direct contact hazards which can result at a minimum in irritation to the respiratory tract, eyes, and skin.

B. High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate;

This factor is present at the Site due to the existence of over 130 drums/containers stored in the fenced lot. Many of the drums/containers are in poor condition and are leaking onto the ground. Several open top containers have overflowed due to precipitation. Runoff from this lot, potentially contaminated with hazardous substances, could impact two commercial areas and a residential yard.

C. Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that may pose a threat of release;

This factor is present at this Site due to the existence of over 200 containers identified throughout the facility. Label information on many of the containers indicate flammable solid, acids, caustics, and heavy metal solids and solutions. Site inspections already indicate releases due to leaking and overflow due to precipitation. Trespassing at the Site is ongoing and may continue to result in releases of hazardous substances.

D. Weather conditions that may cause hazardous substances or pollutant or contaminants to migrate or be released;

The drum/container samples contain hazardous wastes. These drums/containers are both stored inside and outside of the building. Precipitation freely migrated into the building through holes in the roof. The Site is located in north-eastern Illinois and is subject to yearly freeze/thaw cycles. Several drums/containers are in very poor condition because they have rusted through. Rain could cause further deterioration to the drums/containers outside the building and inside the building through holes in the roof. Some of the drums/containers have no lids, and rain could cause these liquids to spill out over the containers and onto the soil.

E. Threat of fire or explosion; and

This factor is present at this Site due to the existence of flammable materials on-site. The building is not properly secured and is easily accessible. Improper handling or vandalism of the drums/containers on-site could result in a fire or explosion.

F. The unavailability of other appropriate Federal or State response mechanisms to respond to the release.

The potential for any state or local response to the R and R Sales Site is unlikely due to lack of financial resources.

IV. ENDANGERMENT DETERMINATION

Given the current conditions at the Site and the nature of the hazardous substances on-site, actual or threatened releases of hazardous substances from this Site, if not addressed by implementing and completing the response actions selected in this Action Memorandum, may present an imminent and substantial endangerment to public health, welfare, or the environment. The possibility of further release of the hazardous substances present a threat to the nearby population and the environment via the exposure pathways described in Section III.

V. PROPOSED ACTIONS AND ESTIMATED COSTS

There are obvious time-critical elements present at the Site. The hazardous substances are located in an unsecured Site, with signs of public trespass, located near industrial and residential areas, and must be immediately addressed. The proposed removal actions at the Site would eliminate the imminent and substantial threats to human health, welfare, or the environment, as outlined in this memorandum.

The OSC proposes to undertake the following response actions to mitigate threats posed by the presence of hazardous substances at the Site:

- A. Develop and implement a site-specific work plan, including a proposed time line;
- B. Develop and implement a site-specific health and safety plan;
- C. Establish and maintain Site security measures during the removal actions, which may include security guard service;

- D. Identify, sample and characterize the hazardous wastes located at the Site;
- E. Determine the horizontal extent of contamination in the surface soils;
- F. Excavate debris and contaminated surface soil to a depth of approximately one foot below grade, and stage on-site, as necessary;
- G. Sample and analyze the soil at the bottom of the excavation;
- H. Backfill the excavated area with clean soil or gravel;
- I. Secure and stage all Site wastes in drums, tanks, vats, pits, sumps, piping, and other containers;
- J. Develop and implement an air monitoring and sampling program during removal activities;
- K. Decontaminate or dispose of all scrap metal and RCRA-empty drums and containers produced during the removal action, and decontaminate affected building surfaces; and
- L. Bulk, consolidate, and dispose of all hazardous substances, pollutants, and contaminants off-site to a U.S. EPA approved disposal facility.

The response actions described in this memorandum directly address actual or threatened releases of hazardous substances, pollutants or contaminants at the Site which may pose an imminent and substantial endangerment to public health, welfare, or the environment. These response actions do not impose a burden on the affected property disproportionate to the extent to which that property contributes to the conditions being addressed.

The estimated costs to complete the above actions are summarized below. These activities will require an estimated twenty-five 10-hour on-site days to complete. Detailed contractor costs are presented in Attachment II.

REMOVAL PROJECT CEILING ESTIMATE

EXTRAMURAL COSTS

Cleanup Contractor Costs	\$ 158,200
Contingency (20%)	<u>\$ 31,640</u>
Subtotal	\$ 189,840
START Costs	<u>\$ 20,200</u>
Extramural Subtotal	\$ 210,040
Extramural Contingency (20%)	<u>\$ 42,008</u>
TOTAL, EXTRAMURAL COSTS	\$ 252,048

INTRAMURAL COSTS

U.S. EPA Direct Costs
(\$30 x 250 Regional Hrs.
+ 25 H.Q. Hrs.) \$ 8,250

U.S. EPA Indirect Costs
(\$65 x 250 Regional Hrs.) \$ 16,250

TOTAL, INTRAMURAL COSTS \$ 24,500

TOTAL REMOVAL PROJECT CEILING \$ 276,548

The removal action will be taken in a manner not inconsistent with the NCP. The OSC has begun planning for provisions of post-removal site control, consistent with the provisions of Section 300.415(l) of the NCP. It is envisioned that after implementation of this removal action, there will be no need for post-removal site control.

All hazardous substances, pollutants or contaminants removed off-site pursuant to this removal action for treatment, storage or disposal shall be treated, stored, or disposed of at a facility in compliance, as determined by U.S. EPA, with the Off-Site Rule, 40 C.F.R. § 300.440, 58 Federal Register 49215 (September 22, 1993).

All applicable and relevant and appropriate requirements ("ARARs") of federal and state law will be complied with, to the extent practicable. A federal ARAR determined to be applicable for the Site is the RCRA Off-Site Disposal Policy. A state ARAR determined to be applicable for the Site is the Subtitle G: Waste Disposal Regulations. Any additional federal and state ARARs will be addressed to the extent practicable.

VI. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

A delay or non-action at the Site may result in an increased likelihood of direct contact to human populations by the hazardous substances and a threat of fire and explosion. Since the Site is easily accessible, the various threats to human health and/or the environment, pose a serious threat to the local population. Additionally, any delay or non-action will also increase the likelihood of contamination migration off-site into the surrounding commercial and residential neighborhood.

VII. OUTSTANDING POLICY ISSUES

There are no outstanding policy issues associated with the R and R Sales Site.

VIII. ENFORCEMENT

For administrative purposes, information concerning the enforcement strategy for this Site is contained in the Enforcement Confidential Addendum, which is presented in Attachment III.

IX. RECOMMENDATION

This decision document represents the selected removal action for the R and R Sales site, located in South Chicago Heights, Cook County, Illinois, developed in accordance with CERCLA, as amended, and is not inconsistent with the NCP. This decision is based on the information contained in the Administrative Record for the Site (Attachment IV). Conditions at the Site meet the criteria, as set forth in 40 C.F.R. § 300.415(b)(2), for a removal action, and I recommend your approval of the proposed removal action. The total estimated project ceiling, if approved, will be \$276,260. Of this, an estimated \$189,840 may be used for cleanup contractor costs. You may indicate your decision by signing below:

APPROVE: William E. Munro DATE: 7/9/99
William E. Munro, Director
Superfund Division

DISAPPROVE: _____ DATE: _____
William E. Munro, Director
Superfund Division

Attachments: I. Region 5 Superfund EJ Analysis
II. Cleanup Contractor Estimate
III. Enforcement Confidential Addendum
IV. Administrative Record

cc: K. Mould, U.S. EPA, OERR, 5202-G
M. Chezick, U.S. DOI, w/o Enf. Addendum
B. Everetts, Illinois EPA, Superfund Coordinator, w/o Enf. Addendum

R-R SALES, INC. SITE

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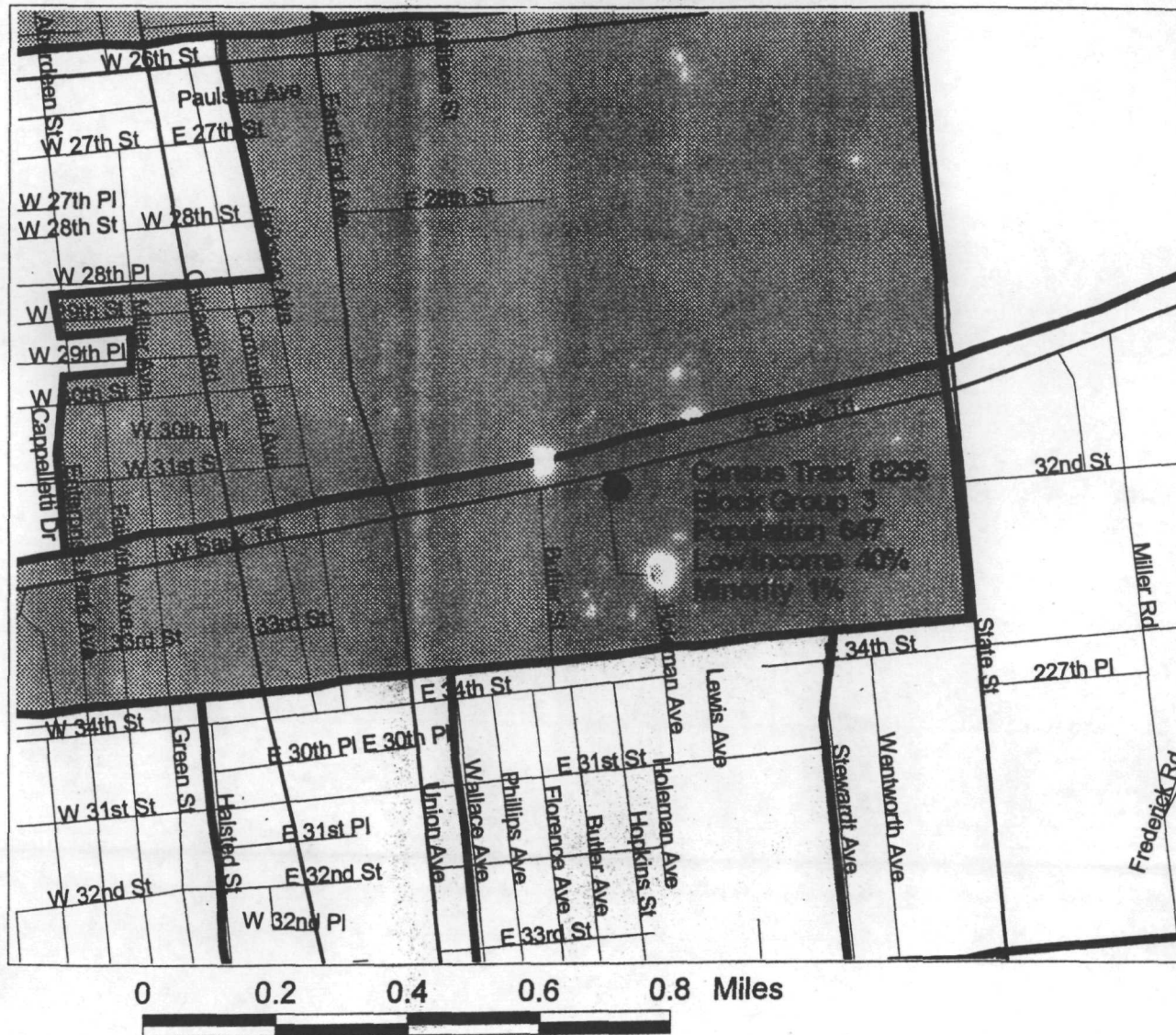
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

NOT RELEVANT TO THE SELECTION OF
REMOVAL ACTION

Region 5 Superfund EJ Analysis

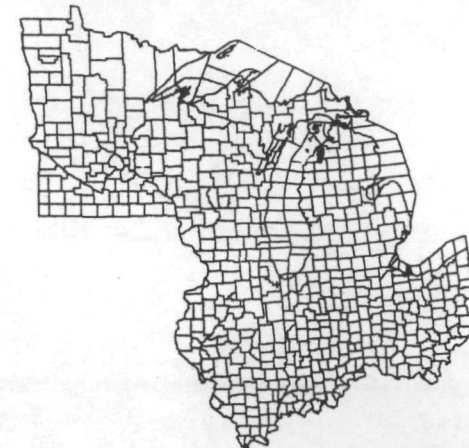
R & R Sales Site, South Chicago Heights, IL



EJ Identification

-  Low Income and Minority Less than State Average
-  Low Income or Minority at or Greater than State Average
-  Low Income or Minority 2 Times or Greater than State Average
[meets Region 5 EJ Case criteria]
-  Site Location
-  Block Group Boundary

Region 5 EJ Case Criteria for Illinois
Minority: 50% or greater
Low Income: 54% or greater



ATTACHMENT II

ERRS CONTRACTOR COSTS

R-R SALES INC.

PERSONNEL	\$ 46,730.00
EQUIPMENT	16,125.00
MATERIALS	49,326.00
TRANSPORTATION	6,000.00
DISPOSAL	<u>40,000.00</u>
TOTAL	\$ 158,181.00

ATTACHMENT III

ENFORCEMENT CONFIDENTIAL ADDENDUM

1 PAGE

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NOT RELEVANT TO THE SELECTION OF REMOVAL ACTION

ATTACHMENT IV

U.S. ENVIRONMENTAL PROTECTION AGENCY
REMOVAL ACTION

ADMINISTRATIVE RECORD
FOR
R-R SALES INC. SITE
SOUTH CHICAGO HEIGHTS, COOK COUNTY, ILLINOIS

ORIGINAL
JUNE 29, 1999

<u>NO.</u>	<u>DATE</u>	<u>AUTHOR</u>	<u>RECIPIENT</u>	<u>TITLE/DESCRIPTION</u>	<u>PAGES</u>
1	00/00/00	Graczyk, L., Ecology & Environment, Inc.	U.S. EPA	Site Assessment Report for the R-R Sales Inc. Site (PENDING)	
2	00/00/00	Benning, B., U.S. EPA	Muno, W., U.S. EPA	Action Memorandum: Request for a Time- Critical Removal Action at the R-R Sales Inc. Site (PENDING)	